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cont

Claim 2 (amended). Hydrogel according to Claim 1, [characterized in that] wherein the PEG has a molecular weight of from [8.000 to 18.000] 8,000 to 18,000 g/mol, in particular from 10,000 to 15,000 g/mol.

Claim 3 (amended). Hydrogel according to [Claims 1 and 2, characterized in that] Claim 1, wherein aliphatic or aromatic or araliphatic diisocyanates, [in particular 1,6-hexamethylene diisocyanate,] are employed to activate the PEGs.

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Claim 4 (amended). Hydrogel according to [Claims 1 to 3, characterized in that] Claim 1, wherein antibodies, matrix metalloproteases, enzyme inhibitors, or peptides are used as proteins.

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Claim 5 (amended). Hydrogel according to [Claims 1 to 4, characterized in that] Claim 1, wherein free radical scavengers [such as] selected from the group consisting of superoxide dismutase, catalase, glutathione peroxidase, myeloperoxidase [and], SOD/catalase enzyme mimics and[/or] combinations thereof are used as proteins.

Claim 6 (amended). Hydrogel according to [Claims 1 to 5, characterized in that] Claim 1, wherein enzymes with antimicrobial activity[, such as lysozyme and hydrolases,] are employed as proteins.

Claim 7 (amended). Hydrogel according to [Claims 1 to 6, characterized in that] Claim 1, wherein enzymes with phosphorylating activity[, such as phosphatases and

kinases,] are employed as proteins.

Claim 8 (amended). Hydrogel according to [Claims 1 to 7, characterized in that] Claim 1, wherein growth factors [such as PDGF] are employed as proteins.

Claim 9 (amended). Hydrogel according to [Claims 1 to 8, characterized in that] Claim 1, wherein enzymes with proteolytic activity[, such as collagenase, trypsin, elastase and/or combinations thereof,] are employed as proteins.

Claim 10 (amended). Hydrogel according to [Claims 1 to 9, characterized in that] Claim 1, wherein proteinogenic protease inhibitors [such as aprotinin, soya bean trypsin inhibitor and alpha-2-macroglobulin and/or combinations thereof] are employed as proteins.

Claim 11 (amended). Hydrogel according to [Claims 1 to 10, characterized in that] Claim 1, wherein proteins are employed in mixtures.

Claim 12 (amended). Process for producing a hydrogel according to [at least one of the preceding claims, characterized in that] Claim 1, wherein

- e) anhydrous PEGs are reacted with diisocyanate in a solvent, [where appropriate] optionally with the addition of a catalyst,
- f) the solvent is removed from the resulting product of activated PEGs by filtration, washing or drying.

g) the activated PEGs are reacted in aqueous solution with proteins, the proteins being present in a buffer which is [preferably] optionally chosen so that the proteins retain their biological activity.

h) [where appropriate] optionally, purification steps and washes are carried out.

Claim 13 (amended). Process for producing a hydrogel according to Claim 12, wherein [characterized in that] the hydrogel is dehydrated.

Claim 14 (amended). [Use of the hydrogel according to at least one of the preceding claims as] A wound dressing[, in particular] for deep and extensive chronic wounds, and burns which comprises the hydrogel according to Claim 1.

Claim 15 (amended). [Use of the hydrogel according to at least one of the preceding claims for application to substrate materials which are permeable to air and water vapour, where appropriate, such as] B[b]andages, compresses, plasters, sheets[,] and films [and the like] comprising the hydrogel of Claim 1.

Please add the following claims:

--16. The hydrogel of Claim 3, wherein said diisocyanate is 1,6-hexamethylene diisocyanate.

17. The hydrogel of Claim 6, wherein said enzyme is selected from the group consisting of lysozyme and hydrolases.

18. The hydrogel of Claim 1, wherein said enzyme is selected from the group consisting of phosphatases and kinases.

19. The hydrogel of Claim 8, wherein said growth factor is PDGF.

20. The hydrogel of Claim 9, wherein said enzymes are selected from the group consisting of collagenase, trypsin, elastase and combinations thereof.--

REMARKS

This preliminary amendment is being filed to eliminate multiple dependency, and to conform the claims to conventional format

Favorable action is respectfully solicited.